WHAT IS CLAIMED IS:

1. A method of making a semiconductor device, the body of the semiconductor device having an exposed zinc oxide surface and nickel end terminations, the method comprising the steps of:

(a) providing a semiconductor body having electrically conductive plates interleaved with zinc oxide layers;

(b) providing a selected nickel plating solution for an intended method of nickel plating; and

(c) controllably contacting an end of the semiconductor body with the nickel plating solution in order to form a desirably thick nickel barrier cap over the end of the semiconductor body without forming a nickel barrier cap over the entire semiconductor body.

2. The method of Claim 1, wherein the temperature of the nickel plating solution is uncontrolled and remains at approximately room temperature.

3. The method of Claim 1, wherein the pH of the nickel plating solution is maintained between about 2 and about 6.

4. The method of Claim 1, wherein contact between the semiconductor body and the nickel plating solution is maintained for a period of approximately 10 to 120 minutes.

5. The method of Claim 4, where contact between the semiconductor body and the nickel plating solution is maintained until the thickness of the nickel barrier cap is between approximately 1 and 3 um.

6. The method of Claim 1, further comprising the step of forming an solderable contact by partially immersing the nickel barrier cap in an acid solution comprising one or more of Alkyl-Tin, Alkyl-Tin-Lead, Tin-Lead sulphuric acid, or Tin sulphuric acid with a pH between about 3 to about 6 at room temperature.

7. The method of Claim 6, wherein the immersion of the nickel barrier cap in the acid solution is for a period of about 10 to about 120 minutes.

8. The method of Claim 7, further including the application to the nickel barrier cap of a biasing current of approximately 0.3 to 2.0 A/dm^2.

9. The method of Claim 7, wherein the immersion of the nickel barrier cap in the acid solution continues until a solderable contact having a thickness of 3 to 6 um is formed.

10. The method of Claim 1, wherein the nickel plating solution is a room temperature solution comprising one or more of nickel sulphate, dimethylamineborane, lactic acid, ammonium citrate, and ammonia.

11. The method of Claim 10, wherein the zinc oxide layers have a resistivity in the range from about 10^{10} to about 10^{12} $Ohms/cm^2$.

12. The method of Claim 1, wherein the contact is by partial immersion in the nickel plating solution.

13. The method of Claim 12, including the further steps of applying a termination material comprising silver and glass frit onto the end of the semiconductor body; and

firing the semiconductor body to mechanically bond the termination material with the end of the semiconductor body.

14. The method of Claim 13, wherein the termination material is essentially free of platinum and palladium; and

wherein the termination material is fired at a temperature between about 550 and 800°C.

15. The method of Claim 13, wherein the nickel plating solution includes one or more of (i) nickel sulphate or nickel chloride, (ii) boric acid, (iii) a wetting agent, and (iv) a stress relieving agent at a temperature of about 50 to 70°C.

16. The method of Claim 15, including the further step of applying a biasing current of about 0.3 to about 2.0 A/dm^2 during nickel plating.

17. The method of Claim 16, wherein the biasing current is variably dependent on the area of the end of the semiconductor to be coated.

18. The method of Claim 12, wherein the immersion depth of the semiconductor body ia controlled to thereby selectively control the distance that the barrier cap extends upwardly from the end of the semiconductor body.

19. The method of Claim 1, wherein the controllable contact is by impregnated absorbent material.

20. A method of providing a semiconductor device having a body with an exposed zinc oxide surface and electrically conductive, solderable metal end terminations, the method comprising the steps of:

(a) providing a semiconductor body having electrically conductive plates interleaved with zinc oxide layers;

(b) applying a termination material comprising silver and glass frit onto opposing ends of the semiconductor body;

(c) mechanically bonding the termination material to the ends of the semiconductor body by firing;

(d) providing at a temperature of about 50 to 70°C a nickel plating solution comprising one or more of (i) nickel sulphate or nickel chloride, (ii) boric acid, (iii) a wetting agent, and (iv) a stress relieving agent;

(e) coating a silver terminated end of the semiconductor body by selectively partially immersing the end of the semiconductor body in the nickel plating solution for a period of about 15 to about 120 minutes while applying a biasing current of about 0.3 to 2.0 A/dm^2 to thereby form a desirably thick nickel barrier cap in contact with the silver terminated end which extends a selected distance up the body of the semiconductor device;

(f) providing a final termination solution of one or more of alkyl-tin, alkyl-tin-lead, tin-sulfuric acid or tin-lead-sulfuric acid, having a pH from about 3 to about 6 and an uncontrolled temperature; and

(g) forming a desirably thick, electrically conductive, solderable contact end termination over the nickel barrier cap by selectively partially immersing the end of the semiconductor body into the final termination solution for a period of about 10 to about 120 minutes while applying a biasing current of about 0.3 to about 2.0 A/dm^2.

21. The method of Claim 20, wherein the pH of the nickel plating solution is maintained between about 2 and about 6.

22. The method of Claim 20, wherein the silver termination material is provided free of platinum and palladium and is fired onto the semiconductor body at a temperature between about 550 and about 800°C.

23. The method of Claim 20, wherein the partial immersion of the semiconductor body in the nickel plating solution is continued until the thickness of the nickel coating is between about 1 and about 3 um.

24. The method of Claim 20, wherein the solderable contact is about 3 to about 6 um thick.

25. The method of Claim 20, wherein the distance that the barrier cap extends from the end of the semiconductor body is controlled by controlling the immersion depth.

26. The method of Claim 20, wherein the biasing current is varied as a function of the area of semiconductor to be coated.

27. A method of providing metal end terminations to a semiconductor device without the use of a plating resist comprising the steps of:

(a) providing a semiconductor body having a zinc oxide exterior with electrically conductive elements interleaved between ceramic layers consisting principally of zinc oxide;

(b) providing a nickel plating solution comprising one or more of nickel sulphate, dimethylamineborane, lactic acid, ammonium citrate, and ammonia at room temperature;

(c) positioning one end of the semiconductor body a selectable distance into the nickel plating solution for a period of about 15 to about 120 minutes to thereby form a desirably thick nickel barrier cap over the end of the semiconductor body;

(d) providing a metal termination solution of either: alkyl-tin, alkyl-tin-lead, tin-sulfuric acid, or tin-lead-sulfuric acid, having a pH between about 3 to about 6; and

(e) forming a metal termination over the nickel barrier cap by partially immersing an end of the semiconductor body into the metal termination solution for a period of about 10 to about 120 minutes while applying biasing current of about 0.3 to about 2.0 A/dm_2.

28. The method of Claim 27, wherein the pH of the nickel plating solution is maintained between about 2 and about 6.

29. The method of Claim 27, wherein the semiconductor body is immersed in the nickel plating solution until the thickness of the nickel coating is between about 1 and about 3 um.

30. The method of Claim 27, wherein the nickel barrier cap is coated with a solderable contact 3 to 6 um thick.

31. The method of Claim 27, further including the step of providing a silver fired termination on the end of the semiconductor body prior to partial immersion in the nickel plating solution.

32. The method of Claim 27, wherein the zinc oxide resistivity is between about 10^{10} to about 10^{12} Ohms/cm^2.

33. A method of providing a metal termination on a semiconductor device comprising the steps of:

(a) providing a semiconductor body having a zinc oxide exterior with electrically conductive elements interleaved between ceramic layers consisting principally of zinc oxide;

(b) providing at room temperature a nickel plating solution comprising one or more of nickel sulphate, dimethylamineborane, lactic acid, ammonium citrate, and ammonia;

(c) impregnating an absorbent material with the nickel plating solution;

(d) positioning one end of the semiconductor body in contact with absorbent material for a period of about 15 to about 120 minutes to thereby form a desirably thick nickel barrier cap covering that end of the semiconductor body and a selected portion of the body of the semiconductor device immediately contiguous thereto;

(e) providing a metal termination solution of one or more of: alkyl-tin, alkyl-tin-lead, tin-sulfuric acid, or tin-lead-sulfuric acid having a pH between about 3 and about 6; and

(f) forming a desirably thick metal termination over the nickel barrier cap by partially immersing an end of the semiconductor body into the metal termination solution for a period of about 10 to about 120 minutes while applying a biasing current of about 0.3 to about 2.0 A/dm_2.

34. The method of Claim 33, wherein the semiconductor body is maintained in contact with the absorbent material for a period sufficient to form a nickel barrier thickness of about 1 to about 3 um.

35. The method of Claim 33, including the further step of moving the semiconductor body relative to the absorbent material.

36. A varistor comprising:

a body of interleaved resistive plates and zinc oxide layers having an external surface of zinc oxide free of any passivation material; and

nickel barrier caps on opposing ends of the body, the nickel barrier caps terminating with naturally formed edges.

37. The varistor of Claim 36, further comprising a silver barrier between the body and the nickel barrier.

38. The varistor of Claim 36, where a nickel barrier cap is between about 1 and about 3 um thick.